

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A radiation-emitting and/or radiation-receiving semiconductor component comprising a radiation-emitting and/or radiation-receiving semiconductor chip, a molded plastic body which is ~~transparent~~ at least partially transmissive to an electromagnetic radiation to be emitted and/or received by the semiconductor component and by which the semiconductor chip is at least partially overmolded, and external electrical leads that are electrically connected to electrical contact areas of the semiconductor chip, wherein said molded plastic body is made of a ~~reaction-curing~~ silicone molding compound, and wherein the semiconductor chip is mounted on a flexible lead frame.

2. (Previously Presented) The semiconductor component as in claim 1, wherein said silicone molding compound has a curing time of 10 minutes or less.

3. (Previously Presented) The semiconductor component as in claim 1, wherein said silicone molding compound has a hardness when cured of 65 Shore D or more.

4. (Previously Presented) The semiconductor component as in claim 1, wherein said silicone molding compound is a silicone composite material.

5. (Previously Presented) The semiconductor component as in claim 1, wherein said silicone molding compound contains a conversion material that absorbs at least a portion of an electromagnetic radiation of a first wavelength range emitted by the semiconductor chip and/or

received by the semiconductor component and emits electromagnetic radiation of a second wavelength range that is different from the first wavelength range.

6. (Previously Presented) The semiconductor component as in claim 1, wherein the semiconductor chip emits electromagnetic radiation in the blue or ultraviolet region of the spectrum.

7. (Previously Presented) The semiconductor component as in claim 1, wherein it has a footprint of approximately 0.5 mm x 1.0 mm or less.

8. (Previously Presented) The semiconductor component as in claim 1, wherein it has a total component height of 350  $\mu\text{m}$  or less, preferably 250  $\mu\text{m}$  or less.

9. (Currently Amended) A method of making a plurality of radiation-emitting and/or radiation receiving semiconductor components as in claim 1 comprising a radiation-emitting and/or radiation-receiving semiconductor chip, a molded plastic body which is transmissive to an electromagnetic radiation to be emitted and/or received by the semiconductor component and by which the semiconductor chip is at least partially overmolded, and external electrical leads that are electrically connected to electrical contact areas of the semiconductor chip, wherein

the semiconductor chip is attached to a metallic leadframe lead frame, a carrier substrate or a carrier-sheet flexible lead frame comprising the external electrical leads,

the semiconductor chip, including subregions of the leadframe lead frame, the carrier substrate or the carrier-sheet flexible lead frame, is placed in a cavity of an injection mold,

silicone molding compound is injected into the cavity via an injection molding process or a transfer molding process, and

the silicone molding compound is cured in the cavity at least such that a shape-stable molded plastic part is formed.

10. (Previously Presented) The semiconductor component as in claim 2, wherein said silicone molding compound has a hardness when cured of 65 Shore D or more.

11. (Previously Presented) The semiconductor component as in claim 2, wherein said silicone molding compound is a silicone composite material.

12. (Previously Presented) The semiconductor component as in claim 3, wherein said silicone molding compound is a silicone composite material.

13. (Previously Presented) The semiconductor component as in claim 2, wherein said silicone molding compound contains a conversion material that absorbs at least a portion of an electromagnetic radiation of a first wavelength range emitted by the semiconductor chip and/or received by the semiconductor component and emits electromagnetic radiation of a second wavelength range that is different from the first wavelength range.

14. (Previously Presented) The semiconductor component as in claim 3, wherein said silicone molding compound contains a conversion material that absorbs at least a portion of an electromagnetic radiation of a first wavelength range emitted by the semiconductor chip and/or received by the semiconductor component and emits electromagnetic radiation of a second wavelength range that is different from the first wavelength range.

15. (Previously Presented) The semiconductor component as in claim 4, wherein said silicone molding compound contains a conversion material that absorbs at least a portion of an electromagnetic radiation of a first wavelength range emitted by the semiconductor chip and/or received by the semiconductor component and emits electromagnetic radiation of a second wavelength range that is different from the first wavelength range.

16. (Previously Presented) The semiconductor component as in claim 2, wherein the semiconductor chip emits electromagnetic radiation in the blue or ultraviolet region of the spectrum.

17. (Previously Presented) The semiconductor component as in claim 3, wherein the semiconductor chip emits electromagnetic radiation in the blue or ultraviolet region of the spectrum.

18. (Previously Presented) The semiconductor component as in claim 4, wherein the semiconductor chip emits electromagnetic radiation in the blue or ultraviolet region of the spectrum.

19. (Previously Presented) The semiconductor component as in claim 5, wherein the semiconductor chip emits electromagnetic radiation in the blue or ultraviolet region of the spectrum.

20. (Previously Presented) The semiconductor component as in claim 6, wherein the semiconductor chip emits electromagnetic radiation in the blue or ultraviolet region of the spectrum.

21. (New) The semiconductor component as in claim 1, wherein the flexible lead frame comprises a carrier film that comprises at least a plastic film and a metal film.

22. (New) The semiconductor component as in claim 21, wherein the plastic film has an opening.

23. (New) The semiconductor component as in claim 21, wherein the plastic film has an opening and the semiconductor chip is bonded to the metal film through the opening.

24. (New) A radiation-emitting and/or radiation-receiving semiconductor component comprising a radiation-emitting and/or radiation-receiving semiconductor chip, a molded plastic body which is at least partially transmissive to an electromagnetic radiation to be emitted and/or received by the semiconductor component and by which the semiconductor chip is at least partially overmolded, and external electrical leads that are electrically connected to electrical contact areas of the semiconductor chip, wherein the molded plastic body is made of a silicone molding compound and wherein the external electrical leads each comprise S-shaped bends that extend from a chip-mounting region to a mounting surface of the semiconductor component, the S-shaped bends being enclosed within the molded plastic body and positioned so that portions of the electrical leads extend outward from two opposite side faces of the molded plastic body.

25. (New) The semiconductor component as in claim 24 wherein a side of the molded plastic body forms a bearing surface of the semiconductor component on a circuit board.

26. (New) The semiconductor component as in claim 25, wherein solder connection areas of the external electrical leads are coplanar with a rear surface of the molded plastic body.

27. (New) The semiconductor component as in claim 1, wherein the silicone molding compound comprises an inorganic filling compound.

28. (New) The semiconductor component as in claim 27, wherein the filling compound comprises at least one of  $\text{TiO}_2$ ,  $\text{ZrO}_2$ , and  $\alpha\text{-Al}_2\text{O}_3$ .

29. (New) The semiconductor component as in claim 9, wherein each semiconductor chip including subregions of the lead frame, the carrier substrate, or the flexible lead frame is placed in a respective cavity of the injection mold and an injection channel is led through one or more semiconductor components.

30. (New) The method as in claim 9, wherein a plurality of semiconductor components is placed in a single cavity of the injection mold.

31. (New) The method as in claim 9, wherein the silicone molding compound has a curing time of 10 minutes or less.

32. (New) The method as in claim 9, wherein the semiconductor chip is attached to a flexible lead frame formed by a carrier film.

33. (New) The method as in claim 32, further comprising forming the carrier film, wherein forming the carrier film comprises forming a laminate comprising a plastic film and a metal film.

34. (New) The method as in claim 33, wherein forming the carrier film further comprises stamping the metal film to define a cathode and an anode for the semiconductor chip.

35. (New) The method as in claim 34, wherein forming the carrier film further comprises stamping openings into the plastic film.

36. (New) The method as in claim 34, wherein forming the carrier film further comprises stamping openings in the plastic film, the openings being arranged over the cathode and the anode.

37. (New) The method as in claim 36, wherein the semiconductor chip is bonded to the cathode through one of the openings.

38. (New) The method as in claim 9, wherein the semiconductor chip is attached to a lead frame and S-shaped bends are formed in the external electrical leads of the lead frame before or after attachment of the semiconductor chip.

39. (New) The semiconductor component as in claim 1, wherein the molded plastic body is formed of a single piece of plastic.

40. (New) A radiation-emitting and/or radiation-receiving semiconductor component comprising a radiation-emitting and/or radiation-receiving semiconductor chip, a molded plastic body which is at least partially transmissive to an electromagnetic radiation to be emitted and/or received by the semiconductor component and by which the semiconductor chip is at least partially overmolded, and external electrical leads that are electrically connected to electrical contact areas of the semiconductor chip, wherein said molded plastic body is made of a silicone molding compound, and wherein the semiconductor chip is mounted on a flexible lead frame that comprises a plastic material.